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ABSTRACT

This Job Function Booklet (Working with Equipment) is one of the 14 components (see note) of the Career Alert Planning (CAP) program, a set of individualized materials designed to help participants find out about themselves and about the kind of work for which they are suited. In this program, participants become acquainted with occupations that are representative of the 10 basic job functions. They learn how these occupations are related to personal interests, abilities, skills, educational goals, experiences, and training. They consider the working conditions, salary, and employment outlook for each occupation. Finally, participants use this information to make decisions and plans about the careers they will pursue. This Job Function Booklet examines occupations which involve working with equipment, one of the 10 basic job functions explored in the series, and describes four occupations related to this function: computer service technician, telephone operator, cook, and machinist. The booklet contains the following sections: (1) an "explore" section, which describes the working with equipment job function and introduces the four occupations representative of it; (2) four "perform" sections, which contain work simulation activities related to each of the four occupations (e.g., "imagine you are a machinist; your task is to choose the correct machines to make parts"); these activities give participants "hands-on" experience in performing work-related tasks; and (3) four "decide" sections, which provide greater detail about the occupations and about working conditions, income, and education and experience required. Education and experience activities that can be undertaken by participants are suggested. (KC)

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What is working with equipment?

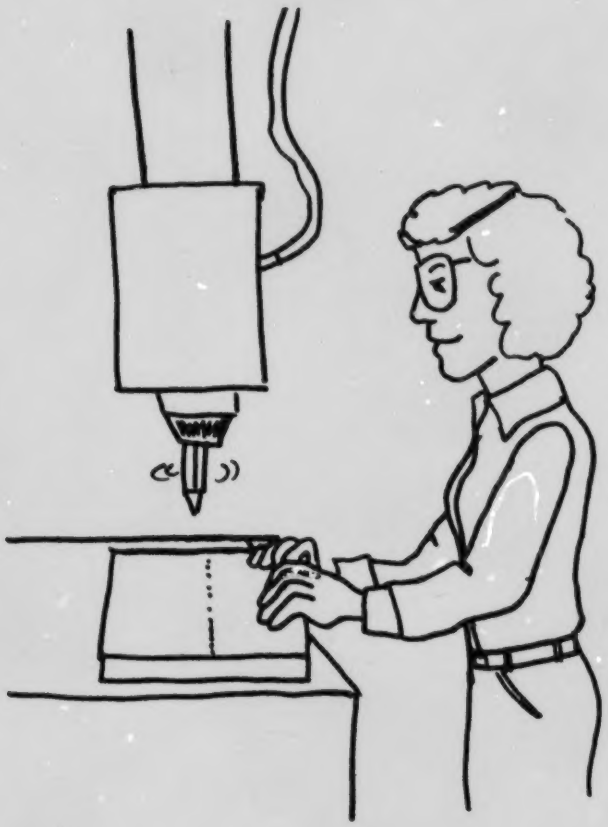
EXPLORE

Working with equipment means using machines or tools to do something. Many people work with equipment as they perform their jobs. They use equipment to . . .

- -make things like clothes and cars
- -test things for weight, density, size, and so forth
- -repair things including other equipment
- -provide services like telephone, gas, and electricity service
- -prepare foods and other consumable products

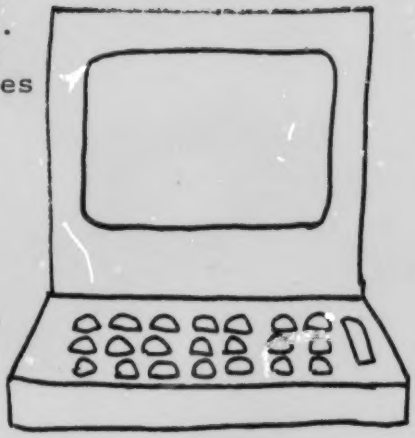
People who work with equipment must know the equipment as well as or better than they know their best friends. They must understand the equipment. They must know how the equipment works and what it can do.

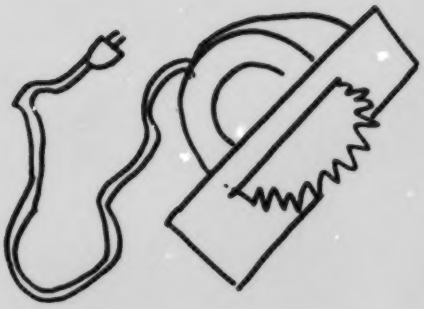
Some equipment is hard to work with. The people who operate this equipment have to be specially trained. Other equipment is not very hard to work with. People can work with that equipment with little training.

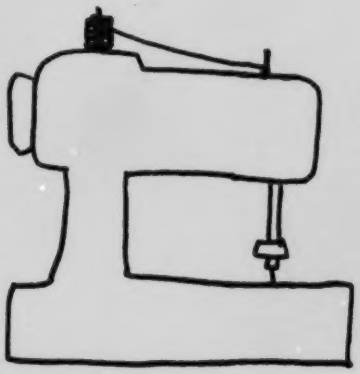


People who work with equipment often work with or alongside other workers. However, they work <u>most</u> closely with the equipment they use. This requires certain work maturity skills. They must . . .

- -follow instructions
- -be careful and attentive
- -work independently to complete tasks
- -be creative and willing to learn
- -practice safe use of tools and machines

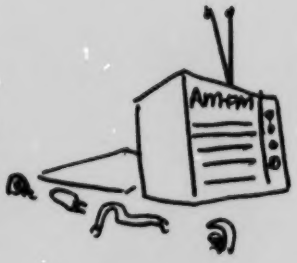






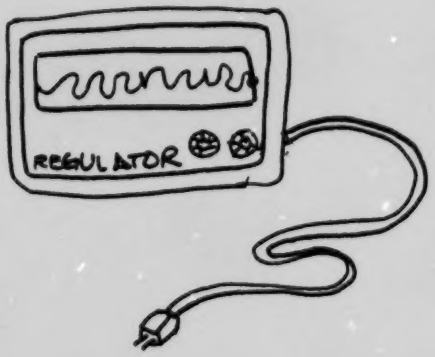
People who work with equipment share many common interests. They enjoy

- -planning their work
- -operating various kinds of equipment
- -working with their hands
- -finding problems and trying to solve them
- -taking things apart and putting them back together
- -using better and quicker ways to complete tasks



Abilities

People who work with equipment have a number of abilities in common. They use their abilities to develop skills--skills that enable them to do a good job. To develop their job skills, people who work with equipment must have the ability to . . .



- -keep their arms and hands steady when they work
- -have a good sense of balance
- -watch things move and adjust a control at the same time
- -work on one job for a long time
- -handle very small things without dropping them
- -follow specific procedures for doing things

Do you feel you have some of the interests and abilities of people who work with equipment? Turn to the Working with Equipment Reaction Form in your Program Guide. Place a check in front of the interests and abilities you share with people who work with equipment.

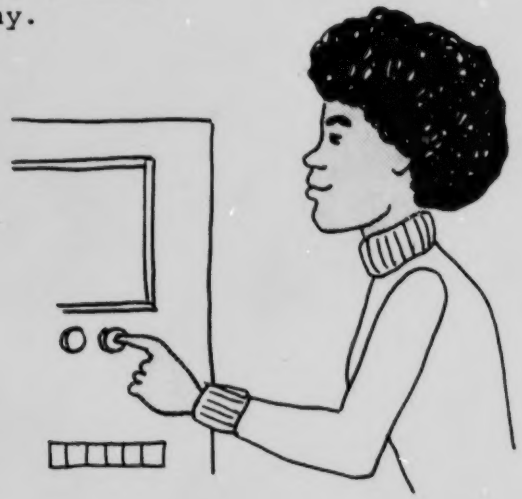
Now you will meet four people. These people have jobs working with equipment. Read about these people. Imagine yourself in their occupations, because . . .

Perhaps you would like a career in working with equipment.

Sally Winthrop, computer service technician

Tools and computers (machines that add, subtract, multiply, and divide numbers) are my equipment. I use the tools to repair the computers.

I have always liked machines. When I was little, I took everything apart to see how it worked. Now my job every day is to take things apart and fix them. Sometimes I feel like a detective when I look for problems in the machines. It can be a lot of fun! I like to make equipment work the right way.



Ned Greywolf telephone operator

I help people make telephone calls. My job is very important in our busy world.

I help people with special long-distance telephone calls. I help people when they are in trouble. I can make fast telephone calls to the police, fire department, or hospital. I have to be alert at all times. I can help save lives by finding numbers quickly and making quick telephone calls. I like my job. I get to work with people and equipment.

Sue Lane
cook

I use many kinds of equipment to cook good meals for people. I work in a restaurant. I plan the menu. And, I cook the meals. Some of my recipes are very hard to cook. Electric mixers and other special equipment make cooking the food easier and more efficient.

I love cooking. I try to cook new things. I make the people in the restaurant happy by cooking food that tastes and looks good.

Jack Wallace
machinist

I use equipment to make parts for machines. I make the parts out of heavy metal. I need very powerful machines. One machine cuts the metal. Another machine makes holes in it. A third machine bends it. I choose the right machine for the job.

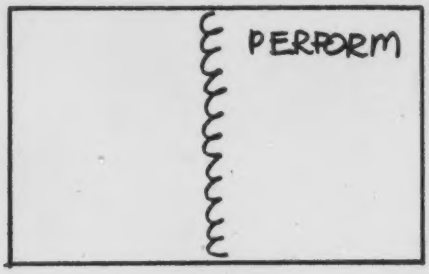
The parts that I make go into machines that make cars. When I see cars driving down the road, I think that they were made by machines that had parts I made on my equipment.

Would you like to try out some jobs that these workers do?

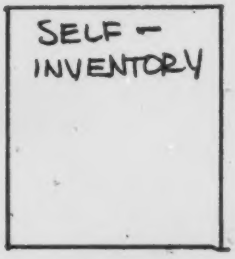
yes ▶ Choose one of these occupations:

Occupation 33--Computer Service Technician
Occupation 34--Telephone Operator
Occupation 35--Cook
Occupation 36--Machinist

Then, turn to the proper PERFORM section of this Job Function booklet.



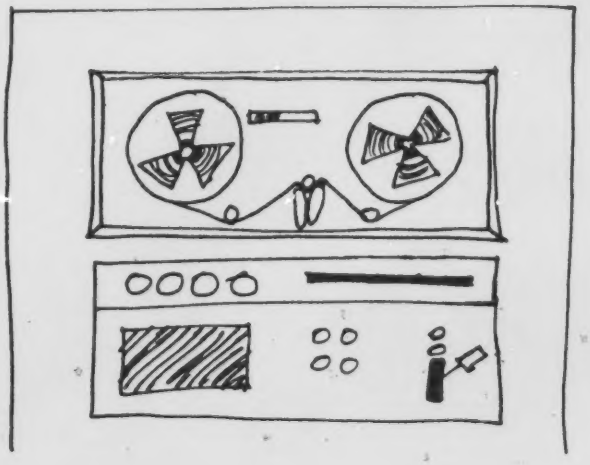
no ▶ Check your Self-Inventory Chart. Choose your next highest-ranking job function. Get that Job Function booklet and read the EXPLORE section.



Computer Service Technician

PERFORM 33

Computer service technicians work with computers. They know how computers are put together. And, they know how the computers should work and what they should do. Computer service technicians must know everything there is to know about computers. This knowledge helps them to perform their many responsibilities.



Responsibilities

1. Service machines to keep them operating well.
2. Install machines.
3. Repair machines.
4. Test machines before they are sold to customers.
5. Keep records of service calls, labor time and costs, and parts inventories.

You will learn something about repairing machines as you PERFORM the following activity.

11

Imagine . . . YOU are a computer service technician.

You work for a company that installs and repairs computers. One of the computers has stopped working. The company needs the machine in good working order right away.

Your task is to find out why the computer is not working.

This is what you must do:

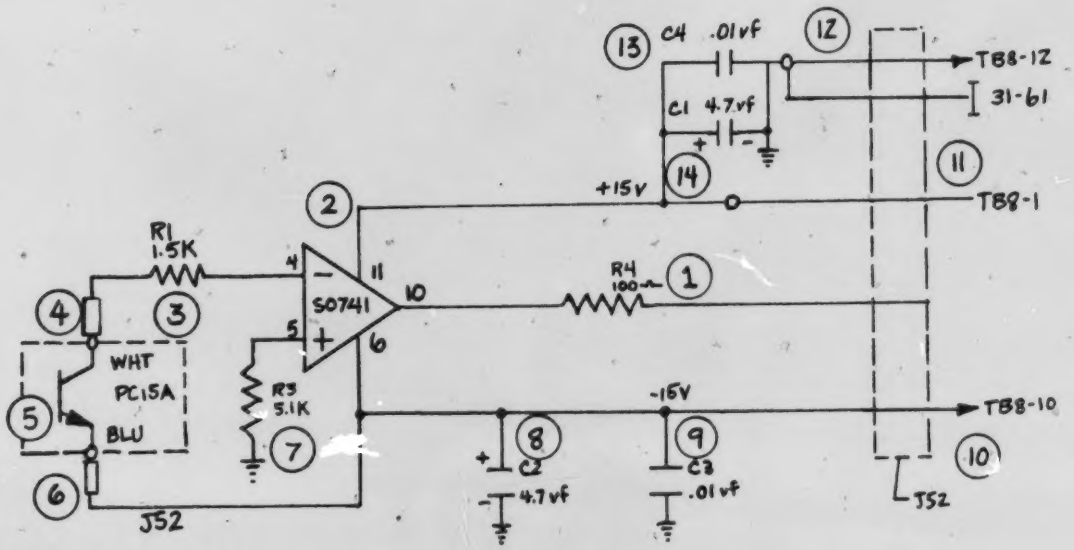
Find the computer checkpoints

STEP 1.

Look at the diagram below. This is a picture of the wires in the electrical system of the whole computer. The diagram shows the technician how the computer is supposed to work.

STEP 2.

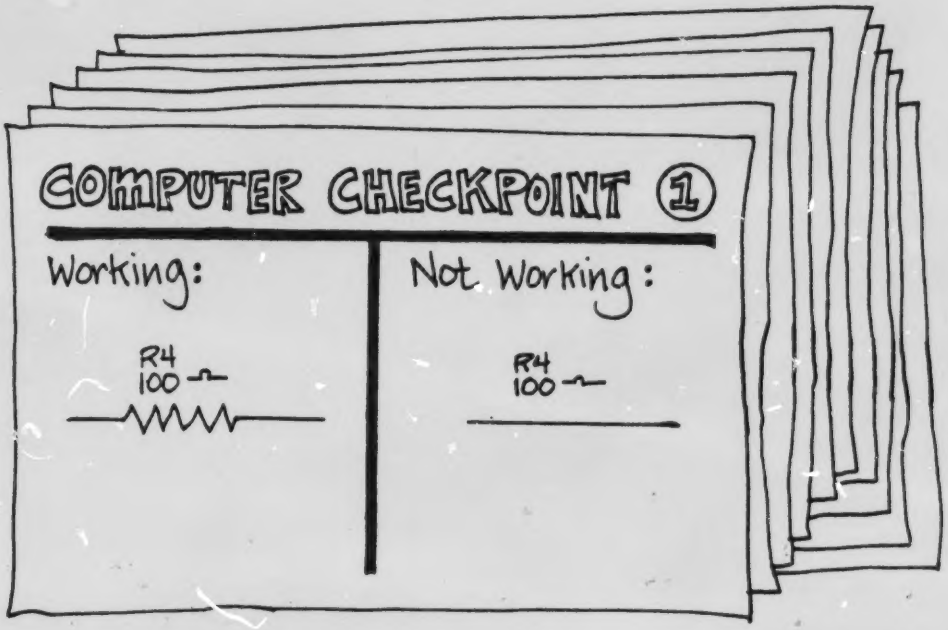
Find the circled numbers on the diagram. They are the checkpoints. Checkpoints are places in the wiring where there could be trouble. There are 14 checkpoints for this computer.



Look at the wiring at each checkpoint

STEP 1.

Turn to Worksheet 33, Computer Service Technician.



STEP 2.

Look at the picture of each of the 14 computer checkpoints.

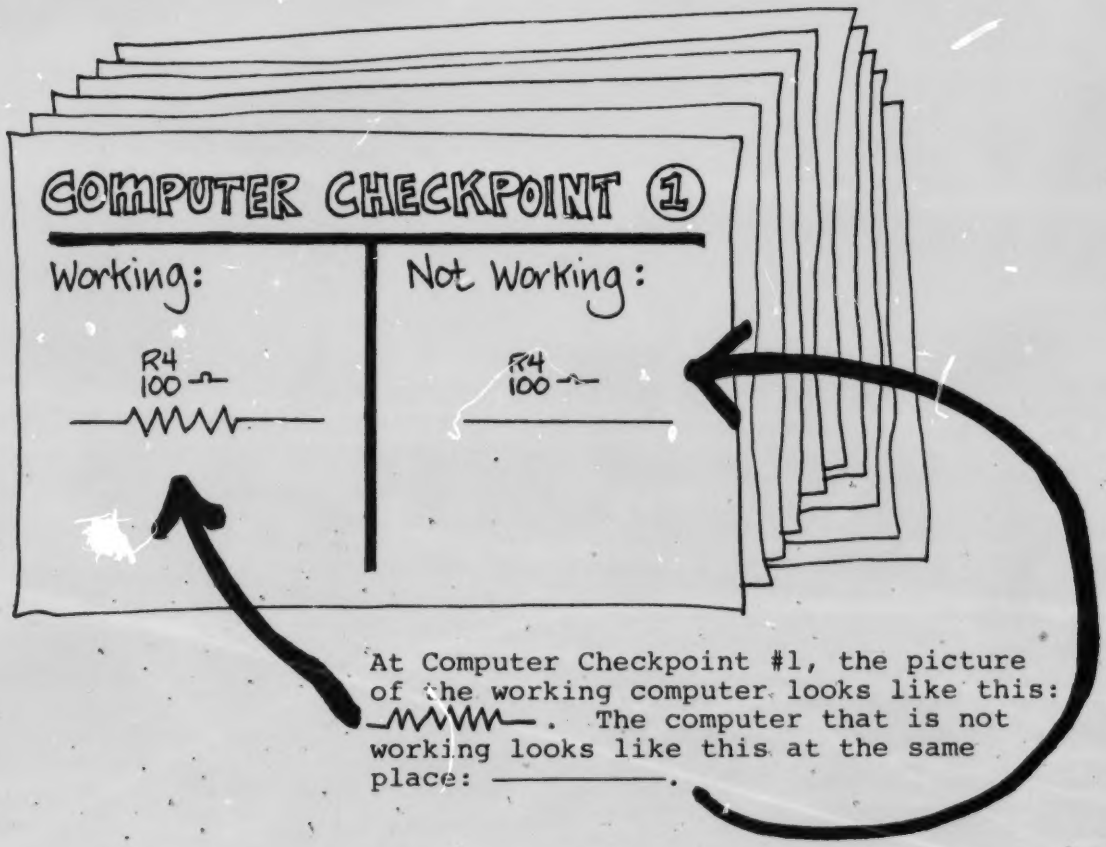
The left side of each picture shows how the electrical wiring looks when the computer is working properly.

The right side of each picture shows how the computer is actually working at this time.

Identify the points at which there are problems

STEP 1.

Compare the actual wiring with the correct wiring. Start with Computer Checkpoint #1.



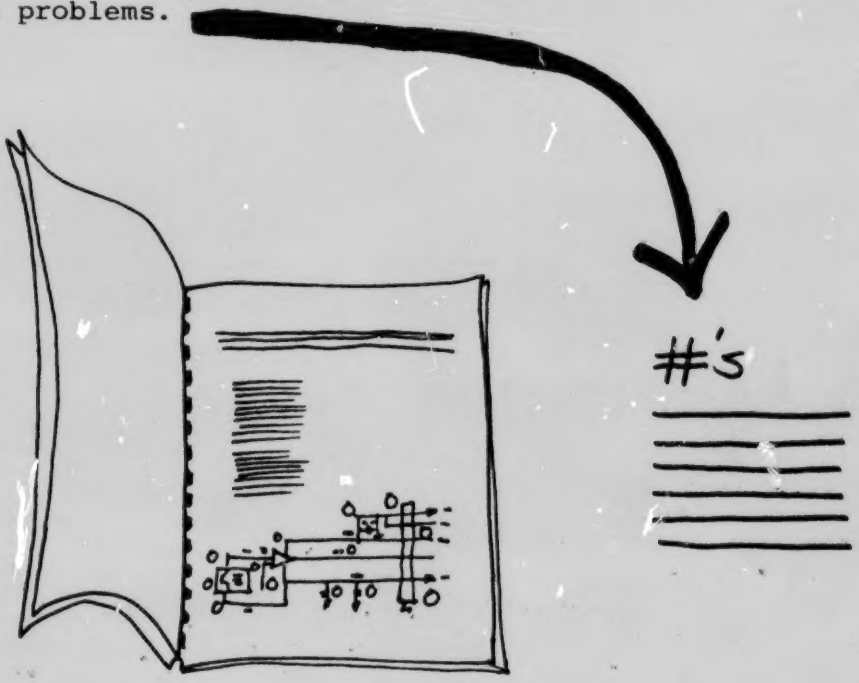
At Computer Checkpoint #1, the picture of the working computer looks like this: —WWW—. The computer that is not working looks like this at the same place: ————.

STEP 2.

Decide if there is a difference between the working and nonworking computer. Any difference means there is a problem.

STEP 3.

List the checkpoints at which there are problems.



Not every checkpoint has a problem. Some parts of the nonworking computer work just fine. List only the numbers of the checkpoints at which there are problems.

STEP 4.

When you have finished deciding about each checkpoint, check your work with the key below.

Key

There are problems at checkpoints 1, 4, 5, 8, 12, 13, and 14.

Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Find the Computer Service Technician page. Record your feelings about your interests and abilities in this activity. Return to this page.

Did you like being a computer service technician? Yes? Then you may want to try

Some other activities:

1. Look at a radio or a telephone. See how it is put together. Look at all the wires and parts.

2. Look up the term electrical circuit in a book. Then see if you can find the circuits in a radio or telephone.

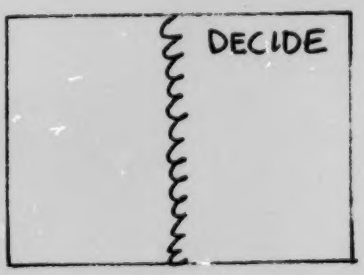
3. Get a simple kit to make a radio or another electrical device. Follow the instructions very carefully. See if you can put the kit together.

4. Make plans to talk to a computer service technician. Talk to the technician about this job.

5. Learn about computers and how they work. Find the information in books and encyclopedias.

Would you like to find out more about this occupation?

yes ▶ Turn to DECIDE 33--Computer Service Technician



no ▶ Turn to another Working with Equipment occupation:

Occupation 34--Telephone Operator
Occupation 35--Cook
Occupation 36--Machinist

or ▶ Look at the Self-Inventory Chart in your CAP Program Guide. Select another job function to investigate.

Computer Service Technician

DECIDE 33

You just did one of the tasks a computer service technician does. You used diagrams to study parts of a computer. You found the problems in the computer. But, computer service technicians must be able to do much more. They must be able to fix the machines after they find the problems.

You may want to know more about a computer service technician's job. The next pages will tell you more about a career as a computer service technician.

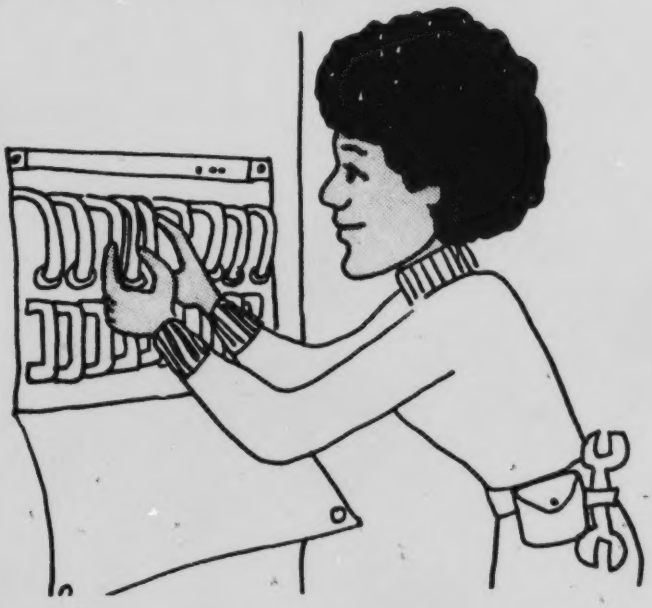
Talking with Sally Winthrop, computer service technician . . .

I work for a company that builds computers. Our company rents these computers to businesses. I install (put in) and care for the computers we rent.

We have computers at two businesses in this city. I installed both of those computers. Now I'm busy taking care of them.

I keep the computers clean. I keep them running the right way. I clean and oil the parts of each computer two times a week.

Even with this care, the computers still break down. When a computer breaks down, I find the problem and fix it. I must work quickly. Every minute that a computer isn't working, the company loses money.



I must keep up with new information and procedures, too. Our company is always making new and better computers. I must learn all about each new computer. Each computer is put together in a special way. No two computers are entirely alike. That means I am continually studying and learning. But, I am developing a lot of skills. I know how to work with many types and models of computers.

How did you prepare for your job?

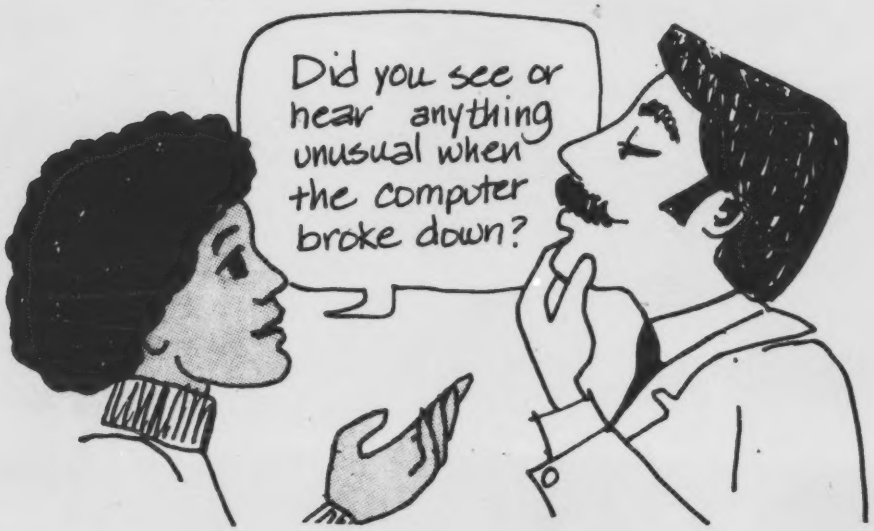
I graduated from high school. Then I went to vocational school for two years. I took courses in electronics. Then I got this job.

I was hired as a trainee. I went to the company training center for six months. There I learned more about electronics. I also learned about computer theory, computer math, and circuiting theory. I got to practice operating computer equipment, doing basic maintenance, and using test equipment.

During my first year, I worked with an experienced technician in my company. I learned a lot from her. Now I work alone.

What do you like most about your job?

I especially enjoy learning about the different types of computers. Each one requires special knowledge and skill. However, I also enjoy talking with people who own the computers. These people tell me what they saw or heard when the machines broke down. That helps me find the problems.

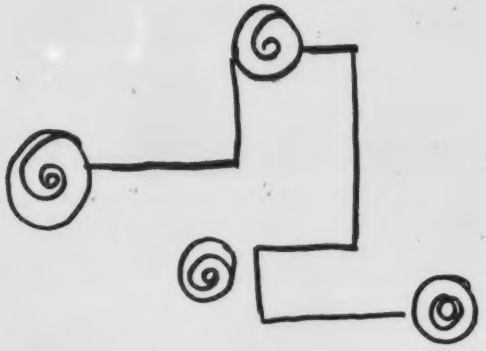


What do you like least?

Computer owners and operators ask a lot of questions. But, they do not always listen carefully to my answers. I frequently have to repeat myself. That requires a lot of patience. I have to keep reminding myself that the customers pay a lot of money for the machines and for my services. They deserve my time and attention.

Do all computer service technicians do the same things that you do?

Yes, although we all work with many different types and models of computers. Thus, the ways we do our tasks depend upon the kinds of computers we work with.



Computer X + Z

Computer L + A

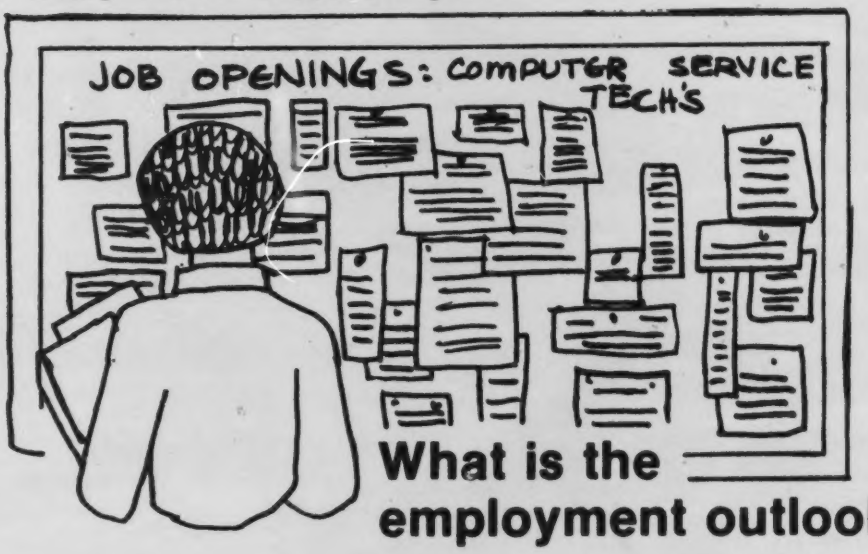
What hours do you work?

I work about forty hours a week. Usually, I work during the day.

When a computer breaks down, I work until it is fixed. One time I worked all day and all night before the computer was fixed. I'm glad that doesn't happen too often!

How much money do you earn?

I began at a salary of $220 per week. Now I earn $240 a week. That amounts to about $12,500 a year. However, I have hopes of receiving a better salary as I get more experience. Senior technicians with several years of experience earn between $250 and $350 per week. Highly skilled specialists average from $300 to $400 per week. That's a lot of money--about $20,000 a year.



What is the employment outlook?

Excellent! Job seekers can expect to find numerous job openings for computer service technicians. Computers are becoming more widely used each year. There are increases in numbers of computers and numbers of computer users. So, it follows that there must also be increases in the numbers of computer service technicians hired to work with the computers.

Do you want to learn more about this job?

You can get more education:

- Take the following courses in high school and/or vocational school.

  Math:

  A computer service technician sometimes needs to solve problems using math.

  Science:

  A computer service technician needs to know about electricity.

  Electronics:

  This is the most important course for understanding how a computer works.

  Computer Programming:

  It is helpful for a technician to know about how computers are used.

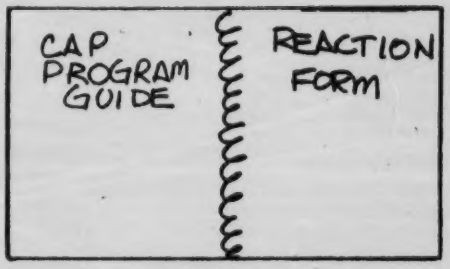
- Read books about computers. You can buy them or get them from the library.
- Arrange to visit a computer service technician at work. Watch what he or she does and look at the computer.
- Explore other careers related to computer service technician such as...
  - -telephone company technician
  - -television repair technician
  - -appliance repairer
- Attend a computer technician training school.
- Take electronics or electrical engineering courses in a two- or four-year college.

You can get some experience:

- Join an electronics club.
- Apply for a job as a computer service technician trainee.

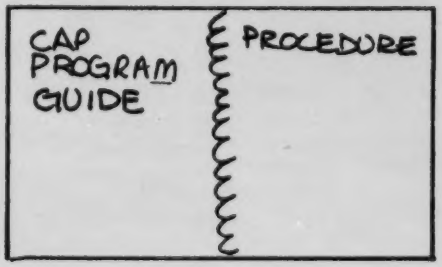
Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Answer the questions on the back of the Computer Service Technician sheet.



What Next?

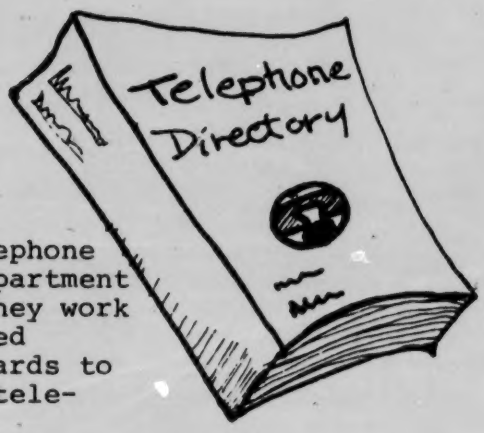
How many occupations have you investigated so far? Turn to the Procedure section of your Program Guide. Find the directions that apply to you.



Enjoy the Career Alert Planning program!

Telephone Operator

PERFORM 34



Telephone operators work for telephone companies, hospitals, hotels, department stores, and other businesses. They work at central telephone boards called switchboards. They use switchboards to help people reach each other by telephone.

Telephone operators talk with many different kinds of people. They must be pleasant and polite. They must speak clearly and listen carefully as they perform their responsibilities.

Responsibilities

1. Provide directory assistance.
2. Assist with long distance and credit card calls.
3. Arrange conference calls for business executives.
4. Operate switchboards.
5. Keep records of calls for billing purposes.

You will learn about providing directory assistance as you PERFORM the following activity.

Imagine . . . YOU are a telephone operator.

You work in the information section of the City Telephone Company. You provide directory assistance to people who need help finding telephone numbers. Many people call each day to get telephone numbers--of businesses, stores, doctors, the police, friends' homes, and other places. You must give them the correct information as quickly as possible.

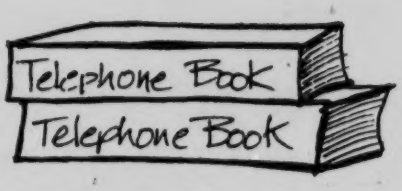
Your task is to find some telephone numbers as quickly as you can.

This is what you must do:

Identify the kind of information listed in the yellow pages and white pages of telephone books

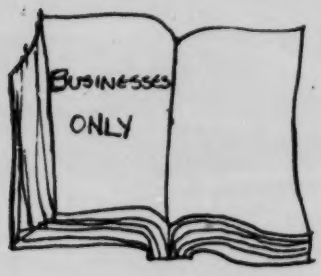
STEP 1.

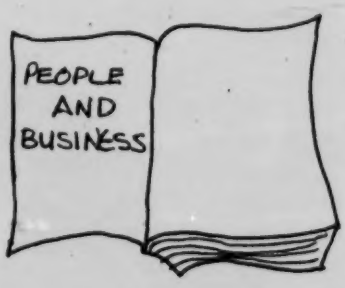
Get two telephone books--one of white pages and one of yellow pages.



STEP 2.

Look through the books to learn what kind of numbers are in each book.





STEP 3.

Write businesses only on a slip of paper. Place the paper on the phone book that lists only the telephone numbers of businesses.

STEP 4.

Write people and businesses on a slip of paper. Place the paper on the telephone book that contains the numbers of people's homes as well as the numbers of businesses. (If your white pages have only telephone numbers of people, write people on the paper.)

Find the telephone numbers requested by customers

STEP 1.

Turn to Worksheet 34, Telephone Operator.

STEP 2.

Give the worksheet to your friend. Ask him or her to pretend to be a customer and to follow the instructions on the worksheet.

STEP 3.

When your friend asks for a number, ask for. . .
-the spelling of the last name,
-initials or first name, and
-address.

Speak clearly. Be pleasant.

STEP 4.

When you find the number, read it to your friend. Your friend should check that the number is correct by looking in the book, too.

Work quickly

STEP 1.

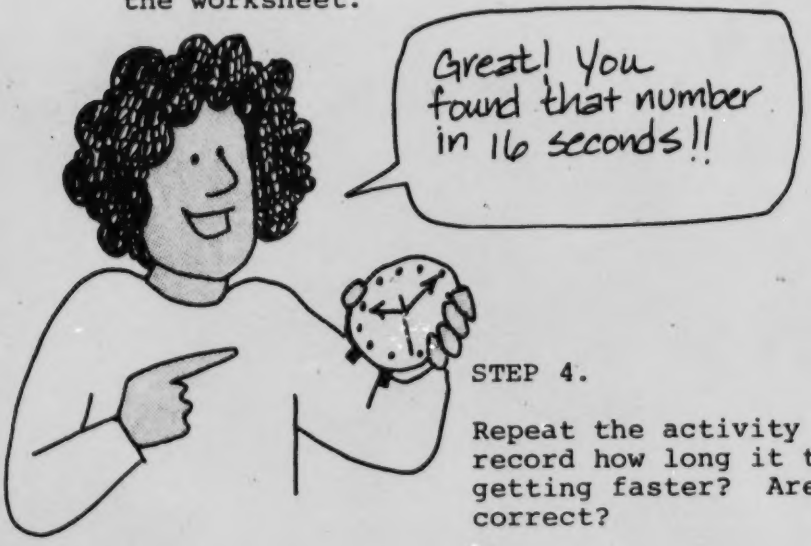
Get a clock with a second hand.

STEP 2.

Do the entire activity again and time yourself.

STEP 3.

Write on a sheet of paper how long it takes you to find all the numbers on the worksheet.



STEP 4.

Repeat the activity another time and record how long it takes you. Are you getting faster? Are your answers correct?

STEP 5.

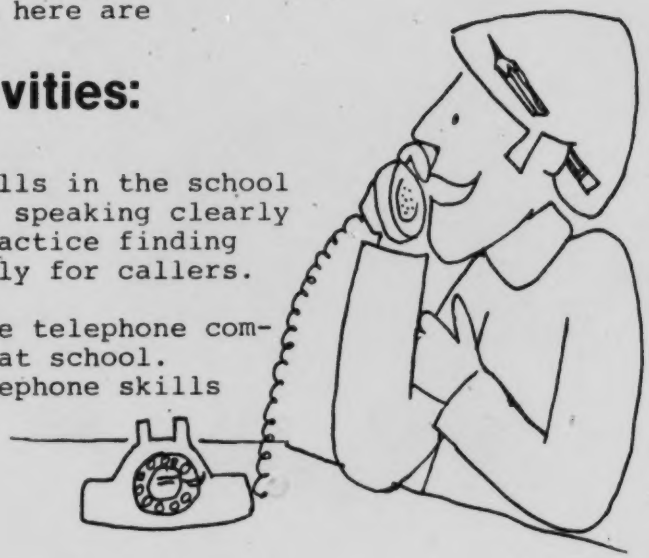
Ask your friend to find some new numbers for you to find. Time yourself. Try to find each number more quickly than you found the last one.

Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Find the Telephone Operator page. Record your feelings about your interests and abilities in this activity. Return to this page.

Did you enjoy being a telephone operator? Yes? Then here are

Some other activities:



1. Help to answer calls in the school office. Practice speaking clearly and politely. Practice finding information quickly for callers.

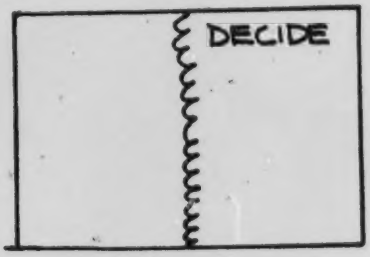
2. Offer to be on the telephone committee of a club at school. Practice your telephone skills with every call.

3. Offer to do some telephone work (calling or answering phones) for a volunteer group. It will help them and you.

4. Plan to visit a telephone operator at work. See how the operator uses the equipment.

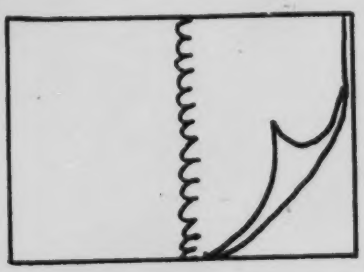
Would you like to find out more about this occupation?

yes ▶ Turn to DECIDE 34--Telephone Operator.



no ▶ Turn to another Working with Equipment occupation:

Occupation 33--Computer Service Technician
Occupation 35--Cook
Occupation 36--Machinist



or ▶ Look at the Self-Inventory Chart in your CAP Program Guide. Select another job function to investigate.

Telephone Operator DECIDE 34

You have just finished one task that a telephone operator does. You practiced finding telephone numbers in the phone book. You practiced speaking clearly and politely to the customer who asked for the phone numbers.

You may want to know more about a telephone operator's job. The next pages will tell you about the job of a telephone operator.

Talking with Ned Greywolf, telephone operator at Community Telephone Company . . .

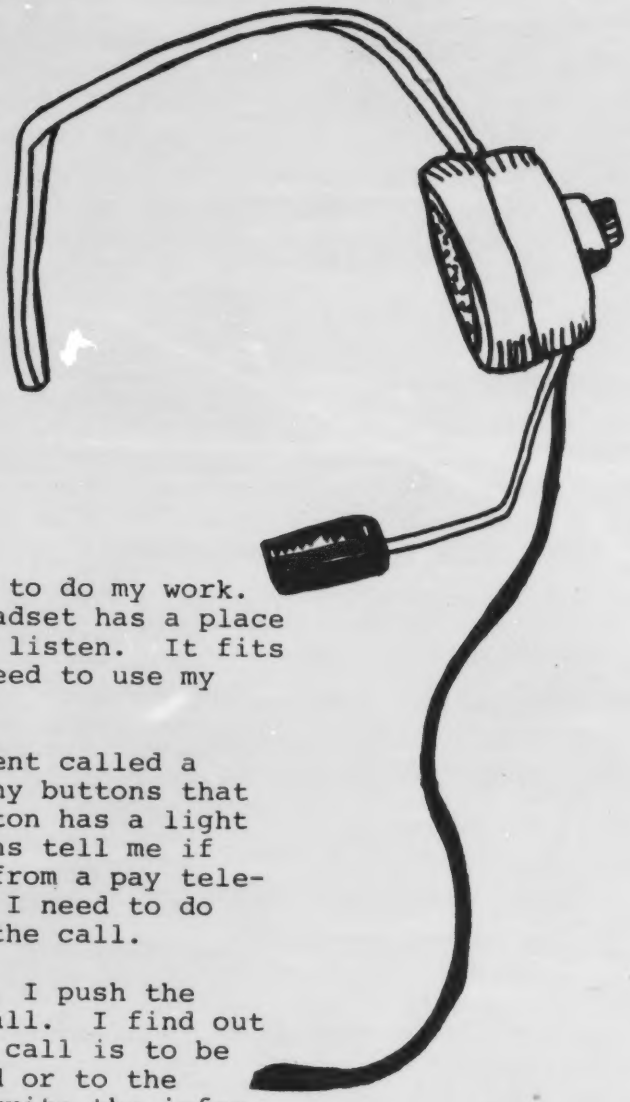
I work at the telephone company switchboard all day. I help people make calls--especially long-distance calls. There are many ways to call long distance.

Today I helped a college student call her parents long distance. She called collect. That means she charged the call to her parents.

Yesterday I helped someone make a long-distance person-to-person call. A caller makes a person-to-person call when he or she wants to speak to one special person at the number. The caller doesn't want to pay for a call if that person is not there!

I help people make long-distance credit card calls, too. In a credit card call, the call is charged to a number that is different from the one the customer is calling from.

I help people with local calls, too. I helped a blind person by finding the phone number of his friend. I helped a very sick person call the hospital. I helped a person who was having trouble getting a telephone call completed. Every day is filled with people who need my help. I do my best to serve them.



I use special equipment to do my work. I wear a headset. A headset has a place to speak and a place to listen. It fits on my head so I don't need to use my hands to hold it.

I use a piece of equipment called a switchboard. It has many buttons that I must watch. Each button has a light behind it. These buttons tell me if the call is being made from a pay telephone. They tell me if I need to do something special with the call.

When a button lights up, I push the button and answer the call. I find out how I can help. If the call is to be charged to a credit card or to the number being called, I write the information on a piece of paper.

Operators who work for businesses have similar equipment. Their equipment is usually less automatic than that at a telephone company. However, it has all the special features that allow for good telephone service.

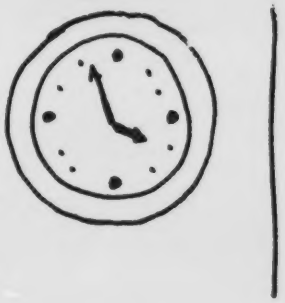
Do all telephone operators do the same things that you do?

No. There are two kinds of operators--long-distance operators, like me, and information operators.

The information operators have the new telephone numbers of people who have had their phone numbers changed. They can find numbers very quickly. In an emergency, information operators can also help the police or the hospital to find an address.

How did you prepare for your job?

I got my job after I graduated from high school. The company trained me to be an operator. They paid me while I learned! I learned how to use the equipment and how to connect many kinds of calls. Once I knew enough about the job, I began working at a switchboard.

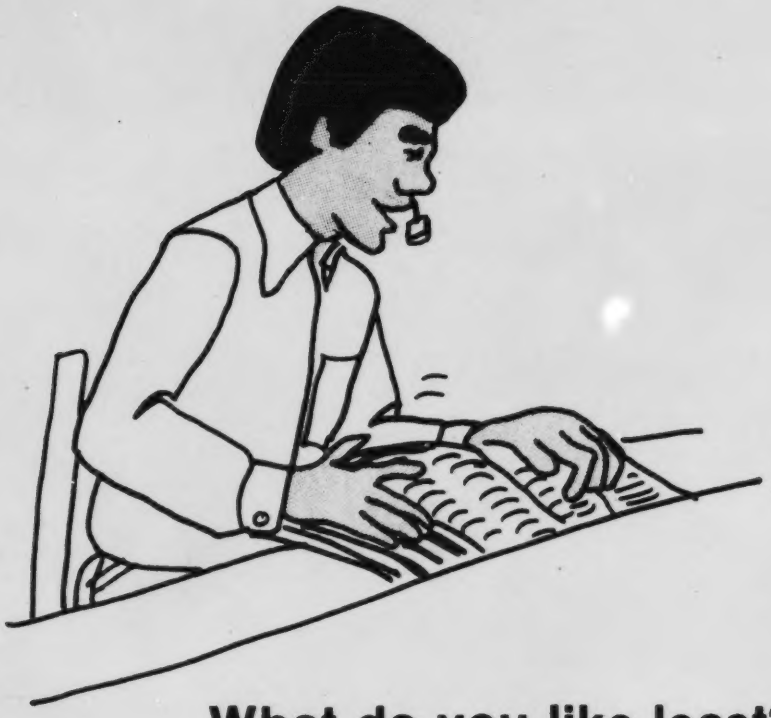


What hours do you work?

I work from 4:00 p.m. to 11:00 p.m., Monday through Friday. People need telephone service 24 hours a day. Our company is always busy. If an operator becomes sick or we are very busy, I work other hours or more hours.

What do you like most about your job?

I enjoy working quickly and being busy all the time. It is fun to think about and do a lot of things at one time. It is a challenge to do everything well. The day goes by so fast when you are busy.



What do you like least?

It is hard to be polite and patient when I am in a bad mood. I would rather be grumpy or sulk. But, I have to put aside my feelings to do a good job. A telephone operator's only contact with customers is by telephone. So, telephone manners are very important. Besides, when I work at being pleasant, my mood often changes and I feel better inside.

How much money do you earn?

Earnings vary in different parts of the country. Here, an operator in training earns about $4.30 an hour. An experienced operator earns about $6.20 an hour ($13,000 a year). Experienced operators may be promoted to service assistants and then to managers. Managers earn over $10.00 an hour, or $21,000 a year. An operator who works weekends, evenings, or holidays is usually paid extra.

What is the employment outlook?

Chances for employment in this occupation are expected to decline slightly. This is because computers and other technological advances will reduce the need for many new workers. However, workers will be needed to replace workers who retire, die, or transfer to other occupations. So there will be work available for many people.

Do you want to learn more about this job?

You can get more education:

- Take the following courses in high school.

  Speech or Public Speaking:

  Telephone operators need to be able to speak so people can understand them.

  English:

  Studying English will help you learn to speak the right way.

- Learn about some jobs related to telephone operators such as...

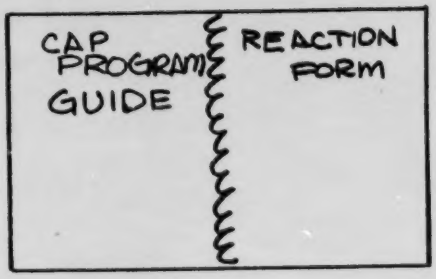
  -telephone company customer services representative
  -telephone company field representative
  -telephone salesperson.

You can get some experience:

- Join a speech club.
- Look for a part-time job making telephone calls (sales or surveys), answering phones, or working at a switchboard.
- Be the telephone chairperson for a club. Practice giving information in a clear and friendly way.
- Apply for a job at a telephone company.
- Apply for a job operating a switchboard at a business, hospital, hotel, or other place.

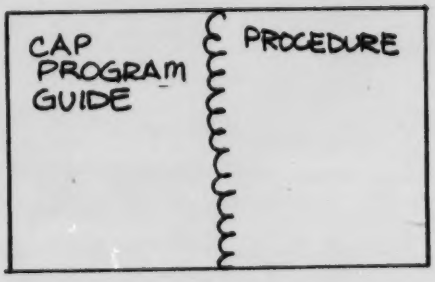
Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Answer the questions on the back of the Telephone Operator sheet.



What Next?

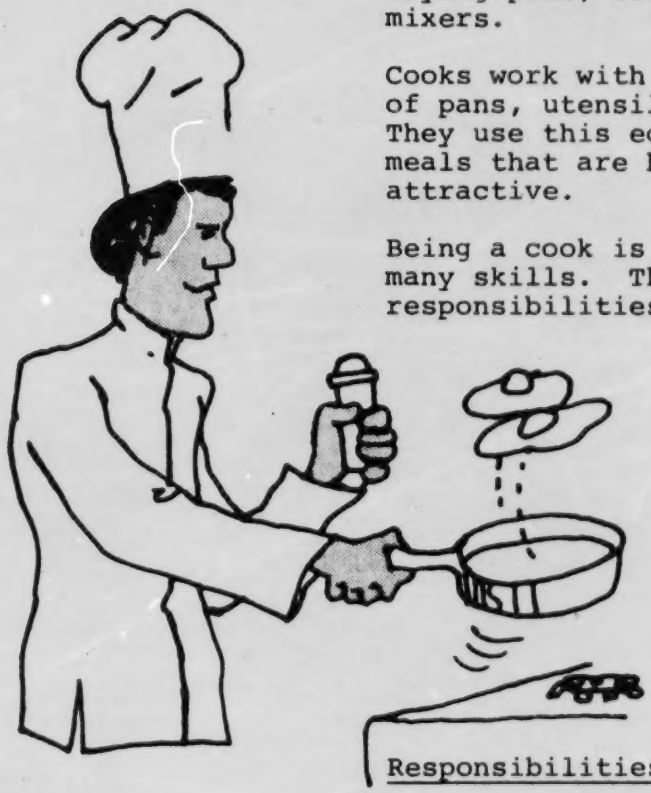
How many occupations have you investigated so far? Turn to the Procedure section of your Program Guide. Find the directions that apply to you.



Enjoy the Career Alert Planning program!

Cook

PERFORM 35



Cooks plan and prepare meals for many people. They use equipment like ovens, ranges, food processors, and electric frying pans, can openers, blenders, and mixers.

Cooks work with various types and sizes of pans, utensils, and measuring devices. They use this equipment to help them make meals that are healthful, tasty, and attractive.

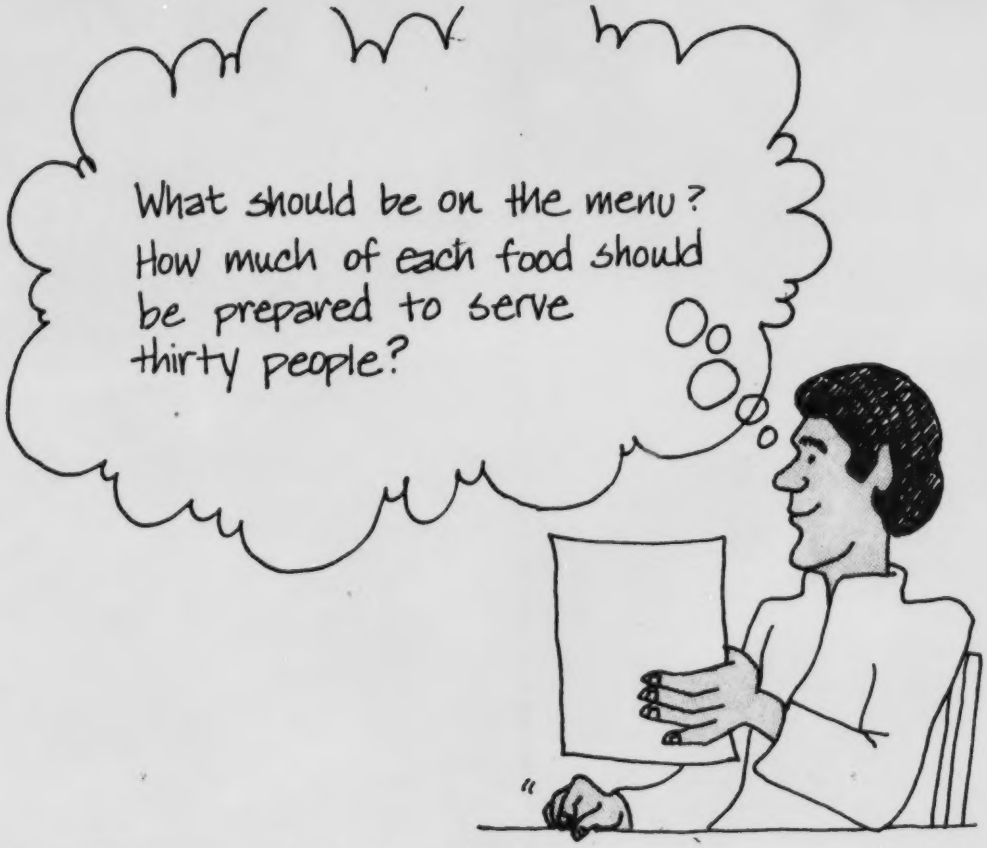
Being a cook is a big job. It requires many skills. These are some of a cook's responsibilities.

Responsibilities

1. Plan meals.
2. Order food supplies.
3. Coordinate the work of the kitchen staff.
4. Create new recipes.
5. Prepare meals.

You will learn about planning meals as you PERFORM the following activity.

Imagine . . . YOU are a cook.



You work as a cook at Browning's Restaurant. Tomorrow night a group of thirty people will be coming to your restaurant.

You must plan a dinner menu. You must figure out how much of each food to prepare.

Your task is to plan the dinner.

This is what you must do:

Choose the foods you will prepare

STEP 1.

Read the choices of food you can select on Worksheet 35a, Cook.

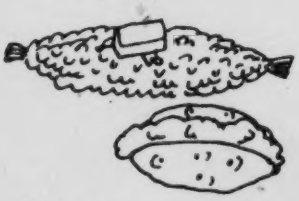
STEP 2.

Select one item from the meat or fish group.

MEAT OR FISH

STEP 3.

Select two vegetables to go with the meat or fish. Think about foods that taste good together. Think about foods that look nice together.



TWO VEGETABLES

STEP 4.

Select one salad, one kind of rolls or bread, and one dessert.

Think about the combinations of food you like to eat in a restaurant. Then make your selections.

ONE SALAD

ONE DESSERT

ROLLS OR BREAD

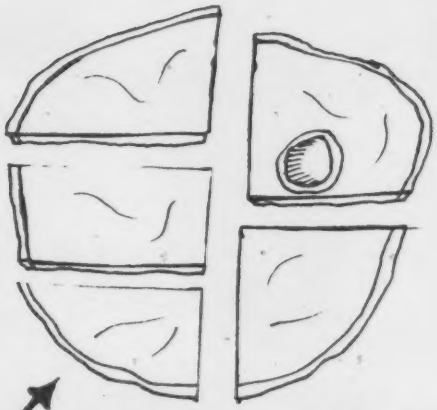
STEP 5.

List the foods you selected on Worksheet 35b, Cook.

Figure how much of each food you must prepare

STEP 1.

Turn again to Worksheet 35a, Cook. Look across from each food item you selected. Read the amount needed for five people.



2 lbs. ham can feed 5 people.

STEP 2.

Write these numbers on the Menu Plan on Worksheet 35b, Cook.

STEP 3.

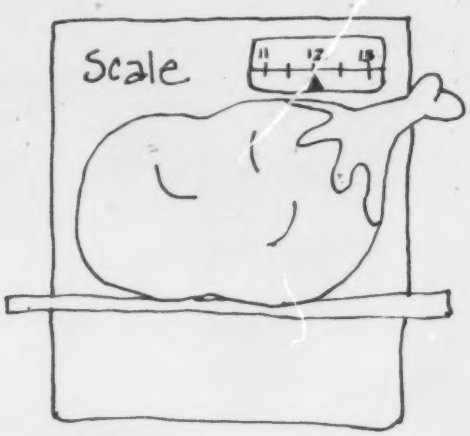
Figure the amounts needed for 30 people.

For example, pretend you selected ham. You can read that 2 pounds of ham is needed to serve 5 people. But, you need to know how much is needed to serve 30 people.

$5\overline{)30} = 6$

So... 6 x 2 lbs. will feed 30 people.

You know that 30 people is 6 x 5 people. So, you need 6 x the amount for 5 people. You multiply 2 pounds times 6 which equals 12 pounds of ham for 30 guests.



12 lbs. of ham is needed to feed 30 people.

STEP 4.

Write the amounts on Worksheet 35b, Cook.

STEP 5.

Check the amounts with the key below.

Key

Key:

Meat or Fish

trout - 30 trout
fried chicken - 12 pounds
ham - 12 pounds
pork roast - 12 pounds
meat loaf - 12 pounds

Vegetables

carrots - 12 cups
potatoes - 30 potatoes
green beans - 12 cups
peas - 12 cups
beets - 12 cups
corn - 12 cups
rice - 18 cups

Salads

fruit salad - 18 cups
cheese plate - 6 pounds
lettuce salad - 30 cups

Rolls or Bread

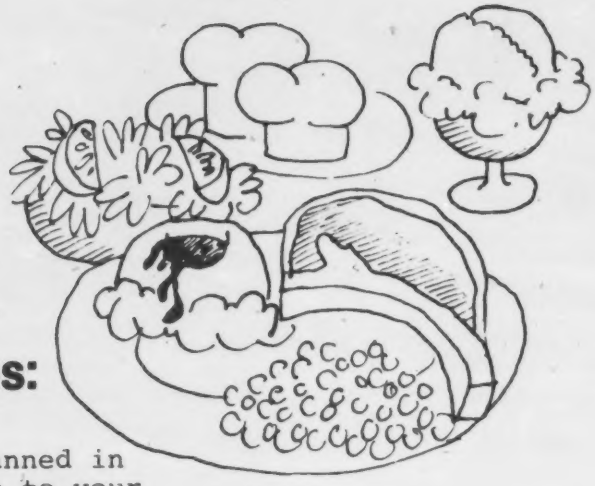
cinnamon bread - 30 rolls
egg rolls - 30 rolls
corn bread - 6 loaves
white bread - 6 loaves

Desserts

apple pie - 6 pies
chocolate cake - 3 cakes
vanilla ice cream - 6 pints
(3 qts.)
custard - 30 cups

Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Find the Cook page. Record your feelings about your interests and abilities in this activity. Return to this page.



Did you like being a cook? Then here are

Some other activities:

1. Prepare the meal you planned in this activity. Serve it to your family and friends. Did you cook the right amount? Did it look good? How did it taste?

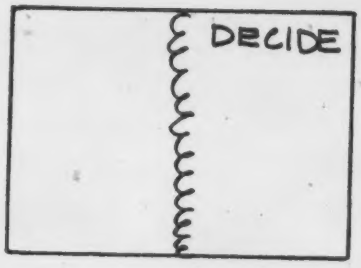
2. Try to cook a new recipe. Again, serve it to your family or friends.

3. Plan to watch the cooks at work in your school cafeteria. Ask them to explain their job to you.

4. Look in magazines for pictures of dinners. Find the dinners that look best to you. What makes them look good? What is in them?

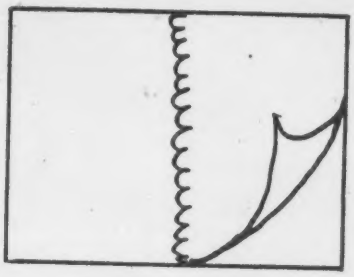
Would you like to find out more about this occupation?

yes ▶ Turn to DECIDE 35--Cook



no ▶ Turn to another Working with Equipment occupation:

Occupation 33--Computer Service Technician
Occupation 34--Telephone Operator
Occupation 36--Machinist



or ▶ Look at the Self-Inventory Chart in your CAP Program Guide. Select another job function to investigate.

Cook

DECIDE 35

You have just finished one of the things a cook does at work. You planned a dinner that would look nice and taste good. Then you figured out how much of each food to fix for 30 people. To do these things, you needed several skills. For example, you needed math to figure out how much food to fix for 30 people. You needed imagination to think about how the foods would look and taste together.

You can find out more about the things a cook does by . . .

Talking with Sue Lane, cook at Murray's restaurant . . .

I am the chief cook at Murray's. Several other people work with me. I am in charge of a sauce cook, a dessert cook, and a salad chef. I make sure everything gets done right and on time.

I do a lot of the cooking myself. I make sure I use the right kinds and amounts of ingredients. I put the ingredients together in the right order. And, I cook the food at the correct temperature for the right length of time. I want the food to taste good.

I wear a special hat when I work. The hat shows that I am the chief cook here. I am proud to wear it. I worked many years to earn it!

I wear other special clothes, too. The health department requires me to wear a clean white uniform each day. The restaurant pays for my uniforms and cleans them. I like that. If I spill something, I don't have to worry about ruining my clothes.

What do you like most about your job?

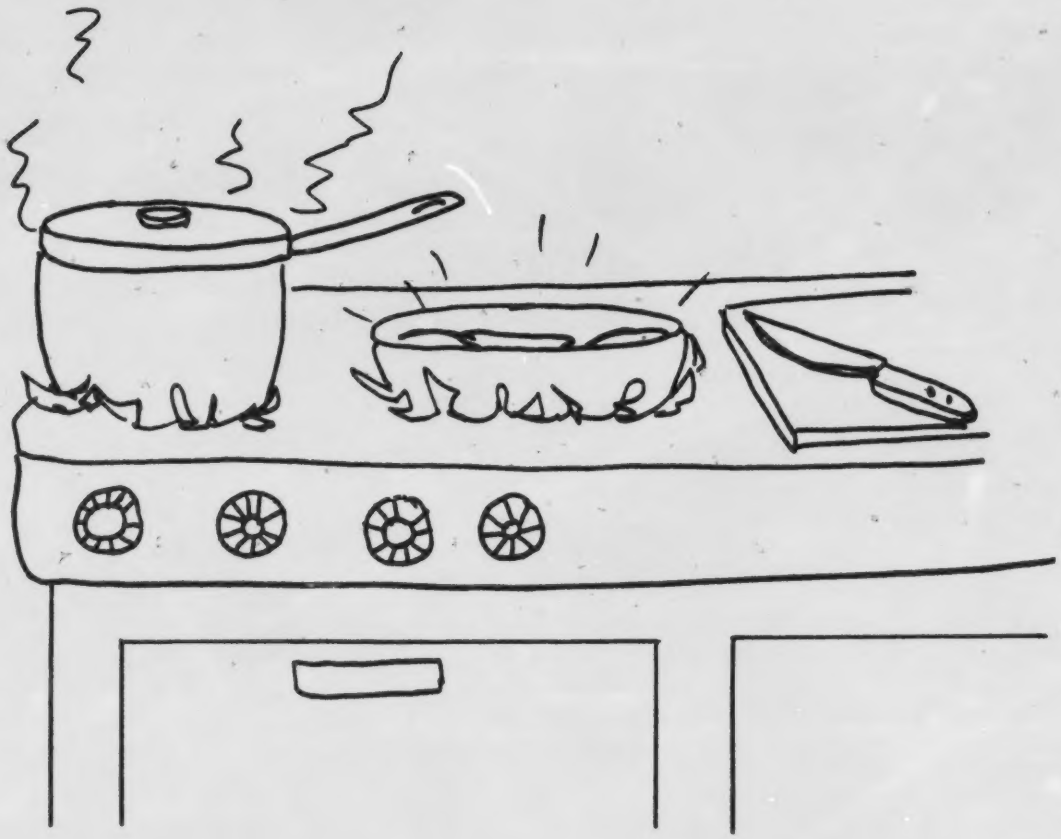
I love cooking! Some of the recipes I make are very complex. Sometimes I have to chop, dice, or slice ingredients. Sometimes I must blend, beat, or whip ingredients.

The recipes also tell me how to cook the food--bake, steam, saute, broil, or fry.

I use special equipment to do all these things. It is fun!

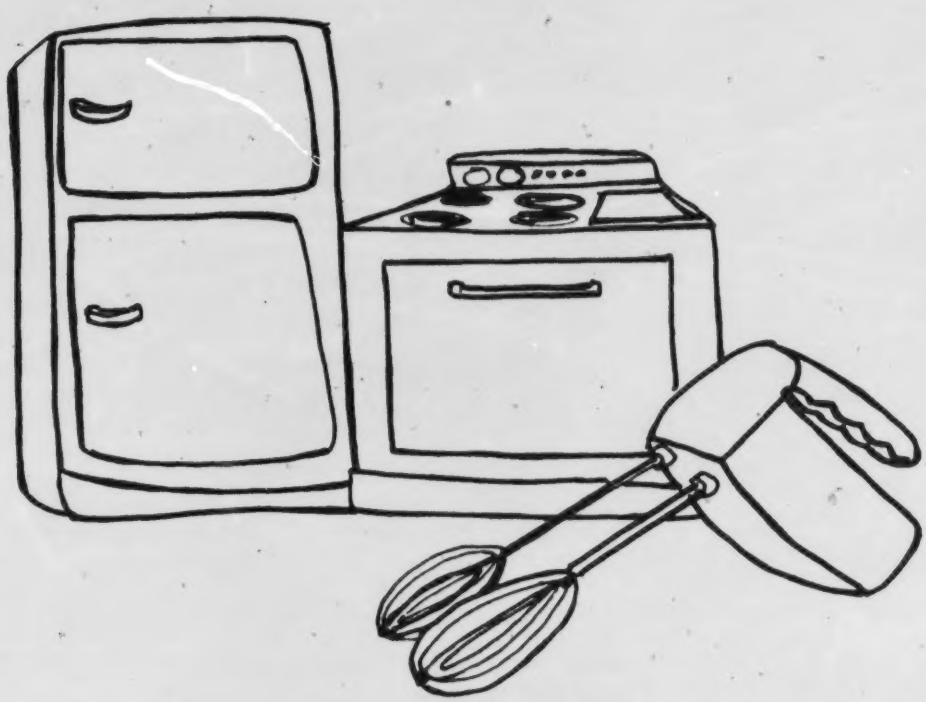
What do you like least?

Well, I have been burned a few times while I was cooking. And, if I am not careful, I can easily cut myself with a sharp knife. Cooks must pay attention to their work. They must practice safe use of equipment.



How did you prepare for your job?

After high school, I applied for a job at Murray's. I worked as a kitchen helper and learned cooking skills. I became the salad cook. Later I worked as a sauce cook, then a dessert cook. I was promoted to head cook after five years. A friend of mine studied cooking at a vocational school for six months. Some people go to college to learn about foods and cooking.



What hours do you work?

I work a "split shift." That means that I work from 10:00 a.m. to 2:00 p.m. and then again from 5:00 p.m. to 9:00 p.m. That way I'm here for both the lunch guests and the dinner guests.

How much money do you earn?

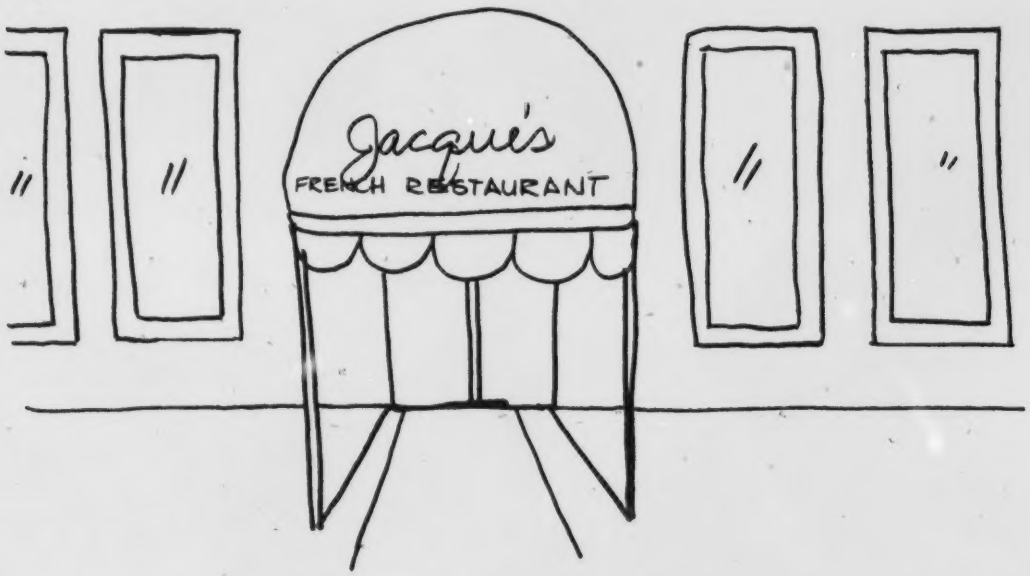
Beginning cooks earn about $3.35 an hour. Experienced cooks earn about $6.50 an hour. That is what I earn. It amounts to $13,500 a year.

Wages for cooks depend upon geographic location and type of restaurant. A few head cooks and chefs--in some of the famous restaurants and hotels--earn more than $35,000 a year.

Do all cooks do the same things that you do?

Yes, although on a different scale. Some cooks work for large hotels or restaurants. They prepare food for large banquets and parties. They frequently serve over 200 people at one meal!

Other cooks, like me, work for smaller restaurants. We plan, order, and prepare smaller amounts of food.



What is the employment outlook?

Excellent. Most opportunities will be in small restaurants or cafeterias that require simple food preparation. Many entry-level workers will be needed for these jobs.

Do you want to learn more about this job?

You can get more education:

- Take the following courses in high school or vocational school.

  Home economics:

  Cooking and meal-planning skills can be learned in home economics classes.

  Math:

  Cooks must be able to find out how much food to cook for groups of people. They must know how to change the amounts of ingredients in a recipe. They must know how to measure the right way.

- Take a cooking course in a vocational high school.
- Enroll in an apprentice program. Find out where they are offered. Some large hotels or restaurants have their own training programs.
- Find out about other related occupations...

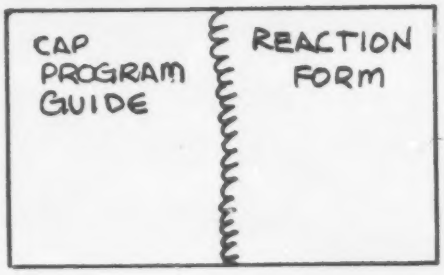
  -baker
  -food service director
  -dietitian

You can get some experience:

- Get a part-time job as a cook or cook's helper.
- Join a Future Homemakers of America Club at school.
- Try cooking meals for your family or friends.
- Get a job as a kitchen helper or assistant cook in a restaurant.

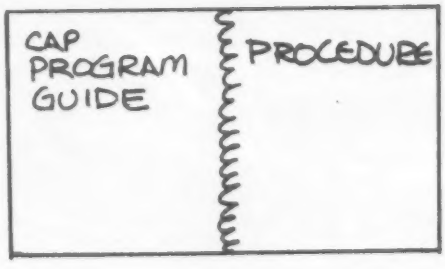
Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Answer the questions on the back of the Cook sheet.



What Next?

How many occupations have you investigated so far? Turn to the Procedure section of your Program Guide. Find the directions that apply to you.



Enjoy the Career Alert Planning program!

Machinist

PERFORM 36

Machinists make parts for machines. They use special tools and machines to make the parts. For example, one machine puts round holes in metal; another puts sharp edges on metal. Machinists must know a lot about machines and metals. They have many responsibilities.

Responsibilities

1. Follow blueprints or other written specifications.
2. Choose the right metal to use to make each part.
3. Select proper machine tools for the job.
4. Set up and operate machine tools.
5. Plan the production of parts.

You will learn more about selecting proper machine tools as you PERFORM the following activity.

Imagine . . . YOU are a machinist.

You work for a company that makes auto parts. You will spend your day at the plant making many parts. You will choose the machines you need to make each part.

Your task is to choose the correct machines to make parts.

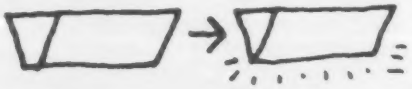
This is what you must do:

Identify the functions of five machines

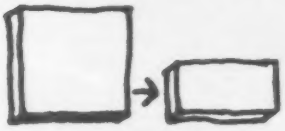
STEP 1.

Read the information below. It tells what each machine does.

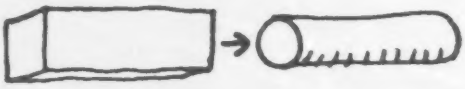
A GRINDER sharpens edges.



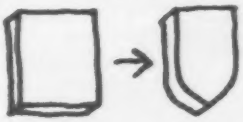
A MILLING MACHINE cuts away extra metal from flat pieces of metal.



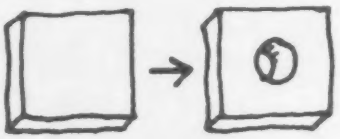
A LATHE makes pieces of metal round.



A SHAPER cuts pieces of metal into correct shapes.



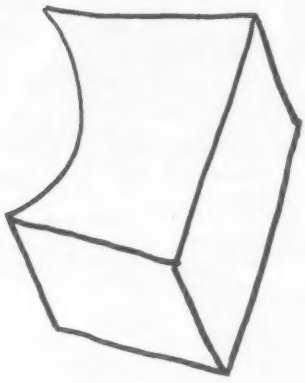
A DRILL PRESS puts round holes in pieces of metal.



STEP 2.

Do Worksheet 36a, Machinist. Identify the machine used on each piece of metal illustrated on the worksheet.

Worksheet #1



Identify the machines you must use to make various parts

STEP 1.

Re-read the information about machines.

STEP 2.

Turn to Worksheet 36b, Machinist.
Look at the parts you must make from pieces of metal.

Worksheet #2

STEP 3.

Select the two machines you must use to make the first part.

STEP 4.

Circle the names of the machines you chose. (Look at the example on the worksheet.)

STEP 5.

Now, select two machines you must use for each of the remaining parts. Look at the pictures. The pictures will help you decide.

STEP 6.

Check your answers with the key below.

Key

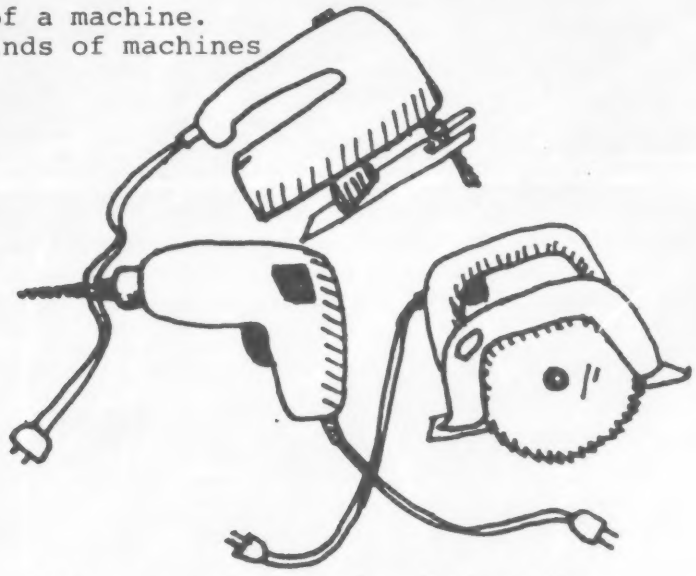
Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Find the Machinist page. Record your feelings about your interests and abilities in this activity. Return to this page.

Did you enjoy being a machinist? Yes? Then here are

Some other activities:

1. Look at the parts of a machine. Think about what kinds of machines made each part.

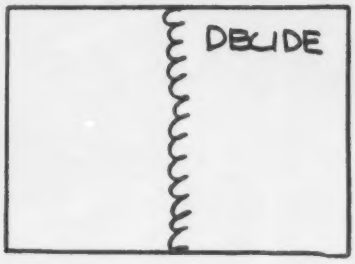


2. Look at a power tool. Ask someone to show you how to use it.

3. Visit a plant where machinists work. Talk to them about their job. See if you can watch them work.

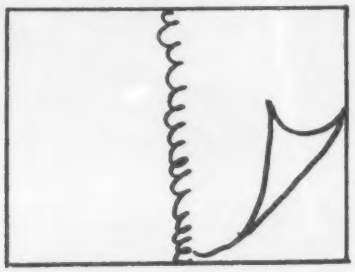
Would you like to find out more about this occupation?

yes ▶ Turn to DECIDE 36--Machinist.



no ▶ Turn to another Working with Equipment occupation:

Occupation 33--Computer Service Technician
Occupation 34--Telephone Operator
Occupation 35--Cook



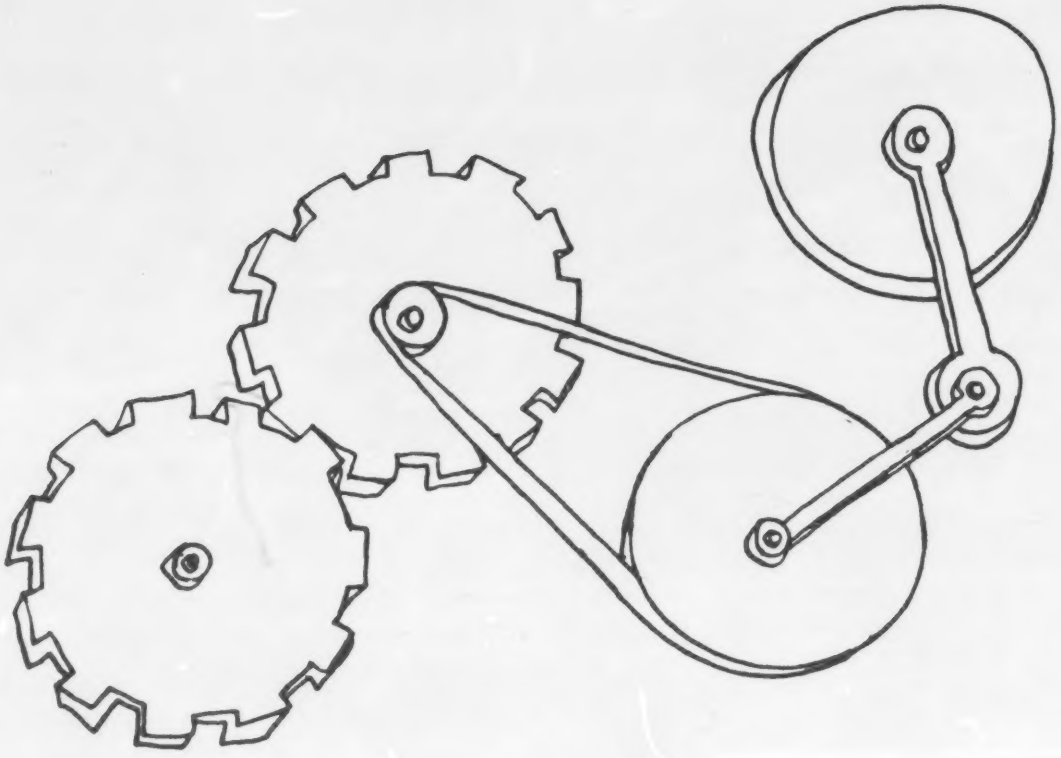
or ▶ Look at the Self-Inventory Chart in your CAP Program Guide. Select another job function to investigate.

Machinist

DECIDE 36

You finished one task a machinist does. You chose the correct machines for making some parts.

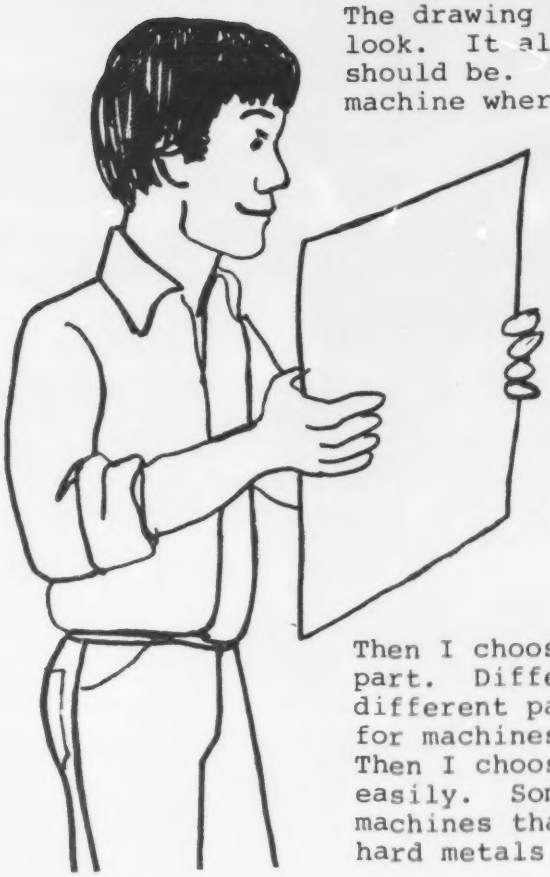
The following pages will tell you more about a machinist's job. They will also answer some questions to help you DECIDE if you would like a career as a machinist.



Talking with Jack Wallace, machinist . . .

I make parts for machines from pieces of metal. When I make a part, I do many things.

First, I look at a drawing of the part. The drawing shows me how the part should look. It also shows what size the part should be. The drawing shows me the machine where the part will go.



Then I choose the best metal for the part. Different metals are good for different parts. Sometimes I make parts for machines that become very hot. Then I choose metals that will not melt easily. Sometimes I make blades for machines that cut. Then I choose very hard metals that will make sharp blades.

Next, I select the right machine tools to use. (MACHINE TOOLS are machines that make parts for other machines.) Some of the machine tools I use are...

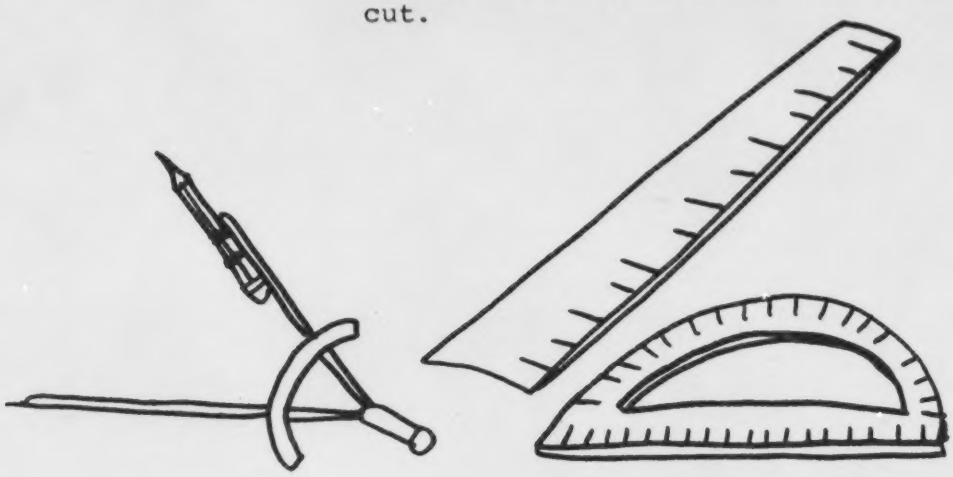
-drill presses
-lathes
-milling machines
-grinders
-shapers

I set up each machine tool for the work it will do. For example, I decide how fast a cutting tool will cut. Then I set the tool to cut at that speed.

Next, I lift the metal onto the machine tool. I fasten the metal to the machine and turn on the machine. I watch to make sure the machine works the right way.

I use measuring tools, too. They help me know where to cut the metal.

I mark the places to cut on the metal. I also mark how deep into the metal to cut.



Before I make a part, I plan how it will be made. I decide <u>what</u> tools to use and <u>when</u> to use each tool.

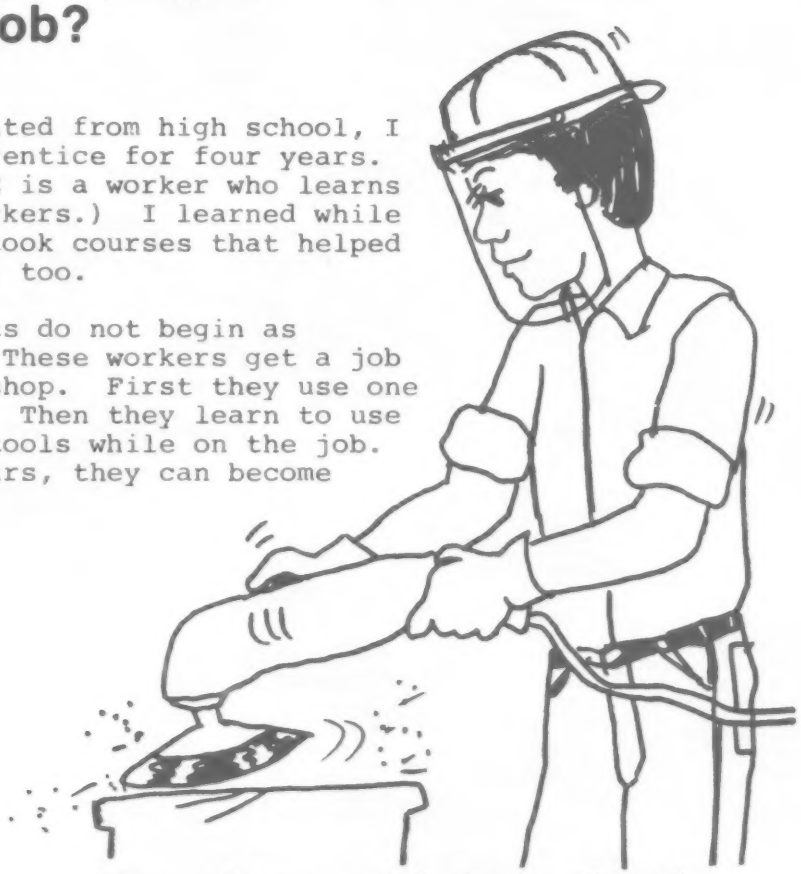
I do the finishing work, too. This is not done by machine. I finish the part by hand. I use small tools, like files and scrapers. Files and scrapers are used to make the part smooth and perfect.

When my work is done, I check it. I look at the part and at the drawing of the part. I make sure the part is the right size and shape.

How did you prepare for your job?

After I graduated from high school, I became an apprentice for four years. (An APPRENTICE is a worker who learns from other workers.) I learned while I worked. I took courses that helped me learn more, too.

Some machinists do not begin as apprentices. These workers get a job in a machine shop. First they use one machine tool. Then they learn to use more machine tools while on the job. After many years, they can become machinists.



Do all machinists do the same things that you do?

Yes. We must all know a lot about machines. We must know the best metal to use for each kind of part.

Machinists use math skills to make decisions about machine tools. For example, we use math to decide how fast a machine tool should operate.

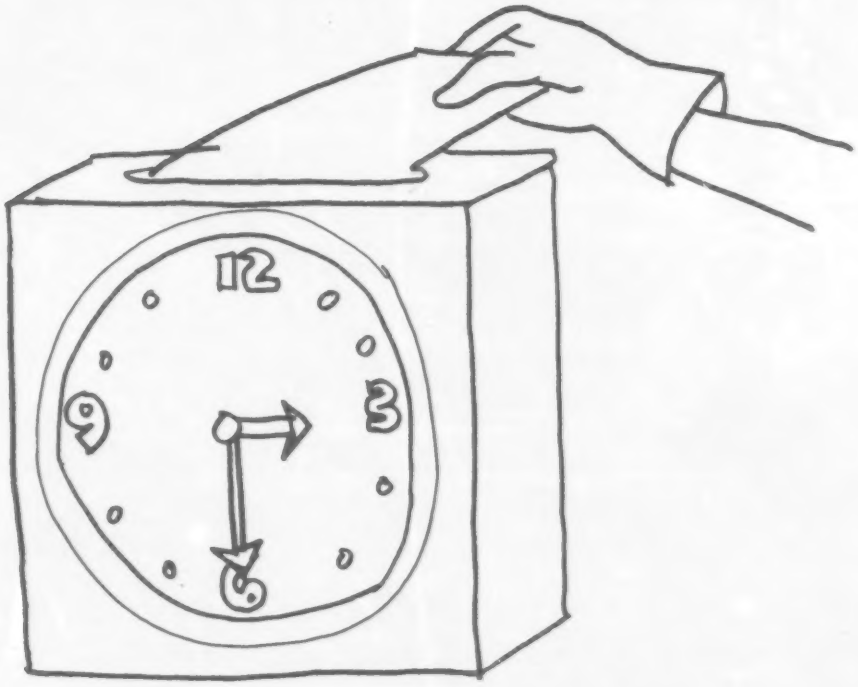
Machinists need to be strong and healthy. We stand for many hours each day. We also lift heavy pieces of metal.

What do you like most about your job?

I'd say being active is the best part of my job. I would not like sitting at a desk all day! I like moving around and working with my hands and body. Also, I like planning a machine part--deciding the best way to make it. When I see a finished part that is perfect, I know my planning helped.

What do you like least?

I don't like it when a part does not come out right. A machinist's work must be exact. It can't be "almost" right. It takes a lot of careful work to make sure each part is perfect.



What hours do you work?

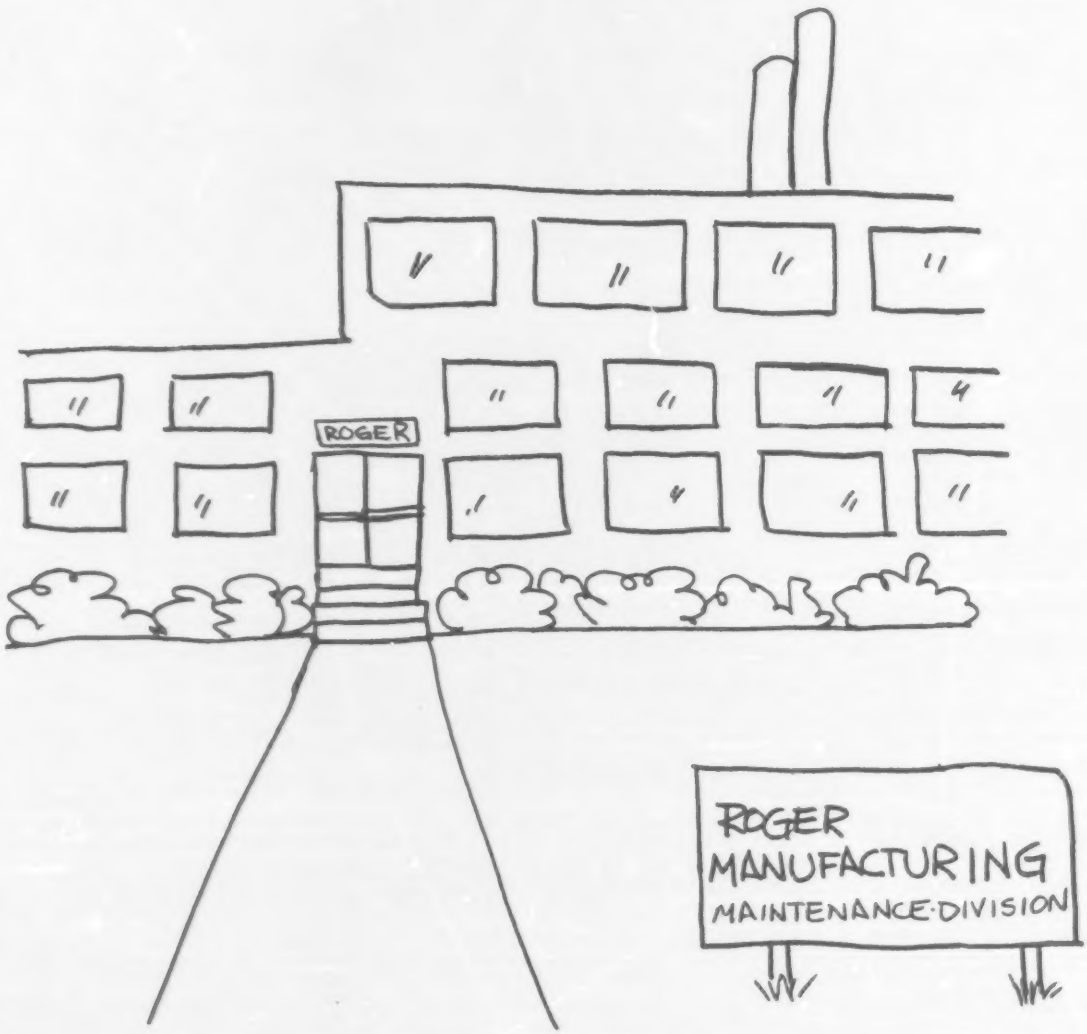
I work from 7:30 a.m. to 3:30 p.m., Monday through Friday. Sometimes I work extra hours, and then I earn extra money.

How much money do you earn?

I earn about $11.25 an hour in my city. Beginning apprentices earn about $5.05 an hour. As a rule, machinists earn from $10,700 to $24,000 a year.

What is the employment outlook?

Good! Much of the work will be found in maintenance shops of manufacturing plants. Use of computers to control machine operations should increase. This factor may make it necessary for machinists to learn additional skills.



Do you want to learn more about this job?

You can get more education:

- Take the following courses in high school or vocational school.

  Industrial Arts:

  Learning how to operate machines is important to machinists.

  Math:

  Machinists use math on the job.

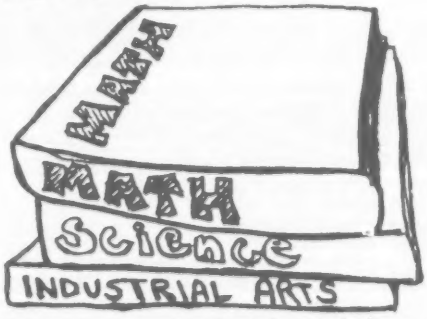
  Science:

  Machinists understand science. They understand how machines work.

- Visit a machine shop and talk to the machinists. See what they do.

- Learn about some jobs related to machinist, such as . . .

  -welder
  -tool engineer
  -machine maintenance mechanic
  -machine assembler



You can get some experience:

- Ask your guidance counselor to help you get a part-time job with a machinist.

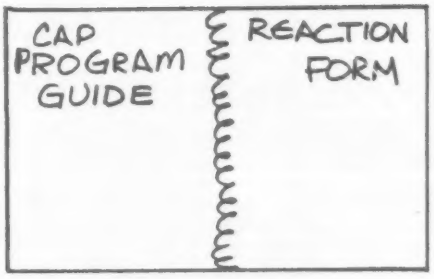
- Join an Industrial Arts Club at school.

- Get information about apprentice programs for machinists. Apply for an apprenticeship program.

- Apply for a job in a machine shop.

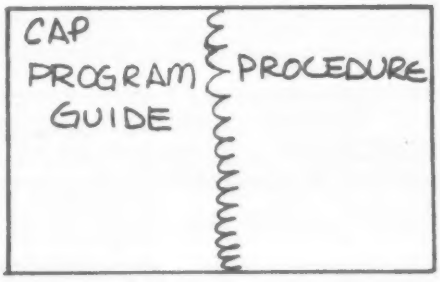
Now . . .

Turn to the Working with Equipment Reaction Form in your Program Guide. Answer the questions on the back of the Machinist sheet.



What Next?

How many occupations have you investigated so far? Turn to the Procedure section of your Program Guide. Find the directions that apply to you.



Enjoy the Career Alert Planning program!